

## ABSTRACT OF THE DISCLOSURE

A radio frequency power amplifier circuit according to certain embodiments of the present invention uses a distributed radio frequency amplifier 110 having a plurality of stages each with an input. The distributed radio frequency amplifier 5 110 drives an output load, such as an antenna 114. A drive signal synthesizer 106, having a plurality of outputs, drives the plurality of inputs to the distributed amplifier 110. Changes in load impedance are measured, e.g., using a directional coupler 160, and the measurement is used to change a drive signal produced by the drive signal synthesizer 106 to compensate for the change in 10 load impedance.

100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1